A NEW ALOE FROM TANGANYIKA

G. W. Reynolds

(With Plates XII and XIII)

Aloe richardsiae Reynolds. Species nova, affinis *A. bullockii* Reynolds, foliis 10—15 mm. latis, racemis multo laxoribus triplo longioribus, bracteisque triplo longioribus differt.

Planta bulbo subterraneo 35 mm. longo, 30 mm. diam., radicibus crassis anguste attenuatis. *Folia* 8—10, rosulata, patula, 20—25 cm. longa, 10—15 mm. lata; *supra* canaliculata, viridula, obscure lineata; *subtus* convexa viridula, immaculata; marginibus dentibus cartilagineis albidis, ½ mm. longis, 1—2 mm. distantibus ciliata.

Inflorescentia simplex, 35—45 cm. alta. *Pedunculus* basi plano-convexus et 8 mm. latus. *Racemus* anguste cylindrico-acuminatus, 25 cm. longus, 5—6 cm. diam. *Bracteae* anguste ovato-acutae, 25—30 mm. longae, 7—8 mm. latae, albidae, scariosae, plurinervatae. *Pedicelli* 5—7 mm. longi. *Perianthium* pallide aurantiaco-coccineum, gracilis, usque 48 mm. longum, circa ovarium 7—8 mm. diam., hinc levissime constrictum et decurvum; *segmenta exteriora* per 15 mm. libera. *Antherae* 1—2 mm. exsertae. *Stigma* demum 2—3 mm. exsertum. *Ovarium* 5 mm. longum, 3 mm. diametro. (Plates XII; XIII).

Tanganyika: Iringa District, Ipogoro-M'kawa track, Sao Hill, c. 3,500 ft., 12 December 1961, Mrs. H. M. Richards 15604, holotype (K), isotype (PRE)—"Grass clearing in woodland, wet mud, dry in dry season. Growing in many thousands, a wonderful sight. Leaves narrow, flowers vermilion, tip yellow. Roots bulbous"; Cultivated Mbabane Swaziland, fl. 5 Oct. 1963, Richards et Reynolds 9971 (K); fl. 17 Nov. 1963, Richards et Reynolds 10003 (PRE).

Our very distinctive new species is named after Mrs. H. M. Richards who is one of the most outstanding collectors there has ever been in Tropical Africa. She started collecting in 1951 (at an age when most men had already retired), and in the following 12 years has collected over 18,000 gatherings, many from places hitherto unknown botanically, mostly in the backwoods of Northern Rhodesia and Tanganyika.

Mrs. Richards and Mr. John Proctor discovered considerable numbers of plants of *A. richardsiae* flowering in December 1961 in a very out of the way place, namely along the Ipogoro-M'kawa track. From a carefully prepared

map by Mr. Proctor the Aloe area lies about 12 miles south-west of Madibira Mission, beyond the Ndembera River, and north-east of Ipogoro, at approximately 8° 16′ S., 34° 44′ E., which is about 50 miles due west of Sao Hill as the crow flies, at 3,500 ft. Mr. Proctor noticed plants in an area about 5 miles long and 2 miles wide.

Mrs. Richards and Mr. Proctor revisited the locality in December 1962 and sent several plants to me and these have grown well in Mbabane, Swaziland. When two of these plants flowered in October and November 1963, photographs were at last secured and the description could be completed.

A. richardsiae is distinguished by having an underground bulb-like swelling and is closely related to *A. bullockii* Reynolds from the Kahama District in North-western Tanganyika—*vide* this *Journal* 27: 73, pl. 11, 12 (1961), but it differs in having much narrower more fleshy leaves (10—15 mm. broad against 30 mm.), a very laxly flowered raceme that is three times as long (25—30 cm. against 7—10 cm.) considerably longer bracts (25—30 mm. long against 8—10 mm.) and longer flowers. The bulb-like swelling in *A. richardsiae* is much more pronounced when flowering in the rainy season than it is in the dry months.

DESCRIPTION

Plant with thick fleshy narrowly long-attenuate (not fusiform) roots, and with an underground bulb-like swelling about 35 mm. long, 30 mm. diam.

Leaves 8—10, rosulate, rather fleshy, suberectly to obliquely spreading, 20—25 cm. long, 15 mm. broad when pressed flat; *upper surface* canaliculate, green, obscurely lineate, unspotted; *lower surface* convex, lineate, without spots; margins ciliate with white cartilaginous deltoid crowded teeth that are ½ mm. long, 1—2 mm. distant.

Inflorescence simple, 35—45 cm. tall.

Peduncle brown, basally plano-convex, 8—9 mm. broad, with a few scattered sterile bracts the lowest up to 5 cm. long, 8 mm. broad, gradually attenuate long-pointed, many-nerved.

Raceme narrowly cylindric-acuminate, very laxly flowered, about 25 cm. long, 5—6 cm. diam., the youngest buds at first hidden by long imbricate bracts, the lowest open flowers pendulous.

Bracts narrowly ovate-acute, 25—30 mm. long, 7—8 mm. broad, thin, white, scarious, many-nerved.

Pedicels 5—7 mm. long, nutant at apex.

Perianth pale orange-scarlet, up to 48 mm. long, 7—8 mm. diam. across the ovary, slightly narrowed above the ovary, thence slightly decurved and slightly enlarging to the throat and narrowing again to a laterally compressed rather

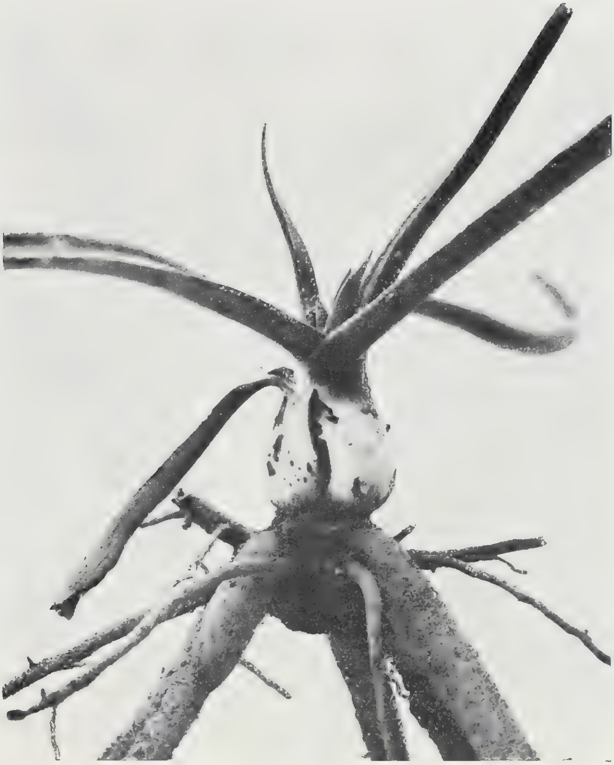

Plate XII

Aloe richardsiae Reynolds Plant x 2/3, showing underground bulbous swelling, and thick tapering—*not* fusiform—roots.

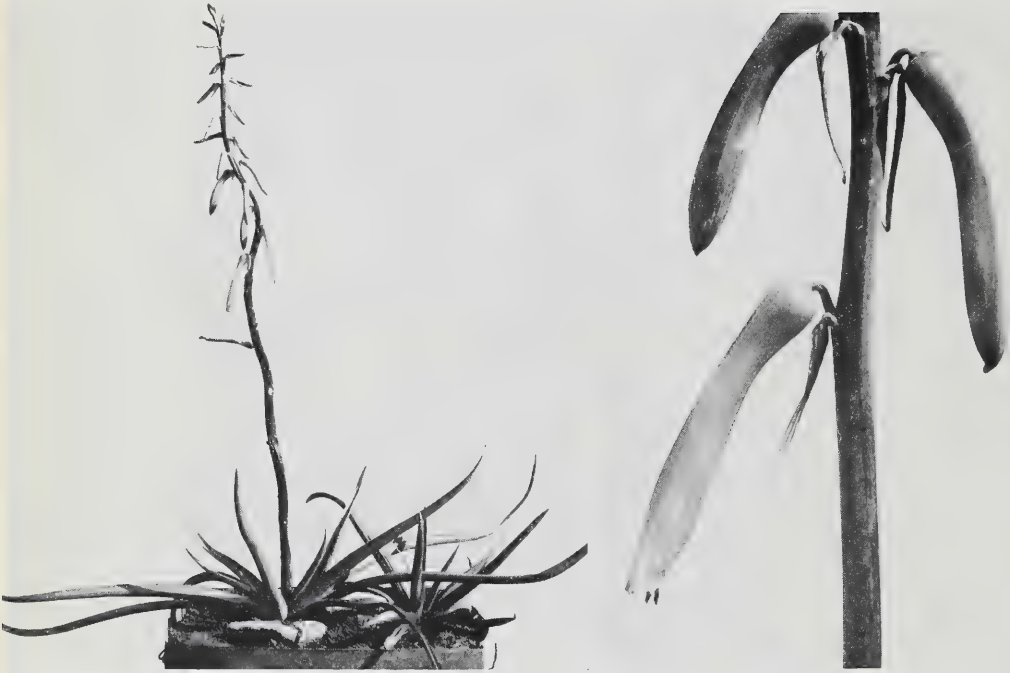

Fig. 1. Fig. 2.

Plate XIII

Aloe richardsiae Reynolds

Fig. 1. Plant x1/5 approx.

Fig. 2. Portion of raceme with bract, pedicel, and flower natural size.

closed mouth; *outer segments* free for 15 mm. (approximately one-third their length), obscurely 3-nerved; *inner segments* free but dorsally adnate to the outer for two-thirds their length, with 3 crowded nerves forming a slight keel, the apices rather obtuse.

Filaments pale lemon, filiform-flattened, the 3 inner narrower and lengthening before the 3 outer with their *anthers* in turn exserted 1—2 mm. *Style* pale lemon, with *stigma* at length exserted 3 mm. *Ovary* very pale olive-green, 5 mm. long, 3 mm. diam.

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